California Academy of Sciences

Annual Report 1978-79

CALIFORNIA ACADEMY OF SCIENCES

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The Board of Trustees of the California Academy of Sciences, 1978-1979. Front row: Mrs. Joseph C. Fennelly, Mrs. Paul L. Wattis, John A. Sutro, Mrs. A. W. Gillette, Mrs. Ernest R. Lilienthal, Rudolph A. Peterson, Mrs. Joseph A. Moore, Jr. Second row: Thad Brown, Marshall Steel, Jr., Jeffery W. Meyer, Lincoln Constance, John S. Hensill, Richard H. Jahns, Paul L. Davies, Jr., Frank E. Hayward, William J. Hume, Thomas Tilton, and A. Starker Leopold. Not present: Peter B. Bedford, Sherman Chickering, Christian de Guigne III, F. Clark Howell, George J. Jewett, Jr., Peter McBean, and Brooks Walker.

A MESSAGE FROM THE CHAIRMAN

The year ended June 30, 1979, was one of change for the Academy, more subtle than dramatic. The level of support of the institution by the City and County of San Francisco declined sharply; all indications are that the year now begun will see a further reduction. One necessary consequence was an increase in admission charges—the first since such charges were instituted in 1969. While some decline in attendance was experienced, this is due only in part to the increased admission charges; a sharp drop in the number of school classes visiting the Academy appears to result from voter-mandated school budget reductions.

Dr. Richard H. Jahns, professor of geology at Stanford University, became president of the Academy succeeding Dr. Lincoln Constance, professor emeritus of botany at University of California, Berkeley, who has served so ably in this post during the past three years. Dr. F. Clark Howell, professor of anthropology at Berkeley, became the Academy's vice president. Dr. Howell also was the speaker at the Academy's Fellows' dinner in October 1978—his subject, "Understanding Human Origins." Dr. George Bartholomew, professor in the Biology Department of the University of California, Los Angeles, was awarded the Fellows' medal in 1978, in recognition of his contributions in the area of environmental physiology.

The Academy was, during portions of this year, the setting for some major exhibitions—"Peru's Golden Treasures," "Ice Age Art" and "Creativity, the Human Resource." The first two were produced by New York's American Museum of Natural History, the second with the co-sponsorship of the L. S. B. Leakey Foundation. The Creativity exhibit was shown in the Atholl McBean and Patricia Price Peterson Galleries and was sponsored by Chevron U.S.A. to celebrate the centennial of Standard Oil Company of California. Recognition must also be given to—and thanks expressed for—a number of smaller, but highly significant, displays, some of which are identified in the Director's report immediately following.

Pepperwood, a more than three-thousand-acre ranch property located in Sonoma County, was deeded to the Academy by the Belvedere Scientific Fund "for scientific and educational purposes." Included within Pepperwood are not only fine samples of usual California foothill and lower mountain terrain, vegetation and wildlife, but also some unusual samples—for example, a small redwood grove. Pepperwood was formerly the property of Mr. and Mrs. Kenneth K. Bechtel, Mr. Bechtel (who died in 1978) having been a longtime Academy trustee. We are grateful to Belvedere's trustees—Mrs. Robert Danforth Ogg (formerly Mrs. Bechtel), Robert L. Bridges, William A. Bucci and Fred Drexler—for this gift which will serve as a fitting memorial to Mr. Bechtel.

Mr. and Mrs. Paul L. Davies, Jr.

Distributions aggregating $2.5 million were received during this year from the estate of William H. Noble, also reported upon in prior annual reports. A number of other major gifts are identified in the Director's report; yet other donors, docents and volunteers are listed in the closing pages of this report, and literally thousands of members and other supporters are not acknowledged by name. (Three thousand members attended our open house in October, 1978!) To all, however, the trustees and staff of the Academy are deeply grateful. It is this combination of loyal supporters which enables the institution successfully to address and carry on its mission.

The Board has approved, and there is underway, a $1 million renovation of the Commercial Building, owned by the Academy and located at 833 Market Street, San Francisco. This building stands on the site of the original Academy, destroyed in the fire and earthquake of 1906, given by James Lick in 1875. We hope as a result of this renovation substantially to increase endowment income from the Commercial Building property.

During the year we suffered the loss of Alan J. Galloway, an honorary trustee, who was chairman of the board of trustees in 1966-67. Ernest C. Arbuckle, chairman of Saga Corporation, and formerly chairman of Wells Fargo Bank, and, before that, Dean of the Stanford Graduate School of Business, was elected a trustee in June 1979, and we extend to him a warm welcome.

The 1979-80 year offers new challenges and new opportunities. With the continued support of our outstanding staff, so ably led by Director George Lindsay, our members, docents, volunteers and our many generous supporters, we shall be able successfully to meet its challenges and to make the most of its opportunities.

Paul L. Davies, Jr.

Paul L. Davies, Jr.
Chairman, Board of Trustees

REPORT OF THE DIRECTOR

This report is for the fiscal year July 1, 1978-June 30, 1979, the 126th of the California Academy of Sciences. It was a year of accomplishments, but there were also disappointments. Attendance was 11.4 percent less than the previous year, 1,522,700 compared with 1,718,827, a decrease attributable to several factors. The cost of admission for adults was raised from fifty cents to one dollar, and charges of fifty cents for youths and twenty - five cents for children six to eleven years old were initiated. These adjustments were necessary to offset Proposition 13 reductions in tax support from San Francisco. Proposition 13 economies also reduced bus transportation for school class groups. The shortage and increased cost of gasoline in 1979 had a drastic effect on tourism and out-of-town visitor attendance, as did the lack of vehicle parking in Golden Gate Park. By the year's end, however, attendance was increasing and admission income in June, 1979, was more than twice that of June, 1978.

The Academy's 1978 - 79 operating budget was $3,352,910, of which the City and County of San Francisco provided $942,489, or about 28 percent, for support of Steinhart Aquarium. This was $350,000 less than had been approved prior to the passage of Proposition 13. It is ominous that City support for the current (1979-80) operating budget is further reduced to $892,177, or 24.3 percent of the Academy's budget of $3,675,193. The Charter of the City and County of San Francisco states "Funds necessary for the maintenance, operation and continuance of said Steinhart Aquarium shall be furnished by the City and County to said California Academy of Sciences." The failure of San Francisco to meet its obligation makes it necessary for the Academy to generate substantial additional income from other sources.

Fortunately private, foundation, and corporation support for operations and for the essential endowment has increased. During the year distributions from the William H. Noble estate to the Academy totaled $2,514,555, of which $55,000 was used to match a National Science Foundation grant for entomological storage equipment and the remainder was added to restricted endowment. Stock valued at $195,000 was received under the terms of a Declaration of Trust for the Gilbert C. Van Camp, Sr., Family. Mrs. I. W. Hellman provided a substantial grant from the I. W. Hellman Foundation. Other important bequests and gifts were from Mr. and Mrs. William J. Hume, Mr. and Mrs. Gordon P. Getty, the estate of Mrs. Lewis S. Rose, from Liliane D. Wells, Mr. and Mrs. Paul L. Wattis, Jr., Mr. and Mrs. Christian de Guigne III, Mr. and Mrs. Stephen C. Wilmans III, Mr. and Mrs. R. C. Johnstone, Jr., Mrs. Marriner Eccles, and many others. According to the Academy's policy unrestricted gifts and bequests of $10,000 or more were added to the unrestricted endowment.

On February 27, 1979 the Academy received the 3117 acre Pepperwood Ranch in Sonoma County from the Belvedere Scientific Fund. Formerly the property of Mr. and Mrs. Kenneth K. Bechtel, the ranch is to be preserved and used for scientific and educational purposes. An endowment to support those uses will be sought. Pepperwood Ranch promises to become an important research asset, a use compatible with the provision that it remain an unspoiled sample of California woodlands and grasslands.

"Peru's Golden Treasures" was the special exhibition during the summer of

Above, Phenna, Larry Foster's fiberglass finback whale, was one of the attractions of the Academy's Whale Week. Left, Dr. and Mrs. Lindsay at Palmer Station, Antarctic Peninsula, while with an Academy members' trip.

1978. It was produced by the American Museum of Natural History, as was "Ice Age Art" which was shown at the Academy from February through the summer of 1979, with the co-sponsorship of the L. S. B. Leakey Foundation. Both exhibits are now scheduled to travel for at least two years. "Creativity, The Human Resource" filled the Patricia Price Peterson and Atholl McBean Galleries from May through August, 1979. This extravagant and innovative exhibit was sponsored by Chevron, in celebration of the Standard Oil Company of California's Centennial. A computerized participatory learning experience, "Creativity" was enormously popular and a striking departure from conventional museum exhibitions.

Sixteen other special shows were presented during the year, most of them custom produced by the Academys' exhibit staff. Outstanding among these was "Namingha: Extensions of the Nampeyo Creative Spirit," featuring the work of the Tewa Hopi artist Dan Namingha, as well as the exceptional pottery of five generations of his family, which was assembled by Mr. and Mrs. Glenn Green of the Gallery Wall in Phoenix. Another was "Man in Essence," photographs of the people of West Irian by the late Laurens Hillhouse, as well as artifacts he collected while making the photographic study. Tupper Ansel Blake's superb photographs of the wildlife of the Farallon Islands will be circulated by the Smithsonian Institution. "From Drake to Cook: Two Centuries of British Discovery in the Pacific" was co-sponsored by the University of California, Los Angeles, and featured its fine collection of maps and documents and those of Robert Power.

The following report is a resume of activities of our institution whose mission is to explore, study and interpret the natural world and its peoples.

PUBLIC ACTIVITIES

STEINHART AQUARIUM

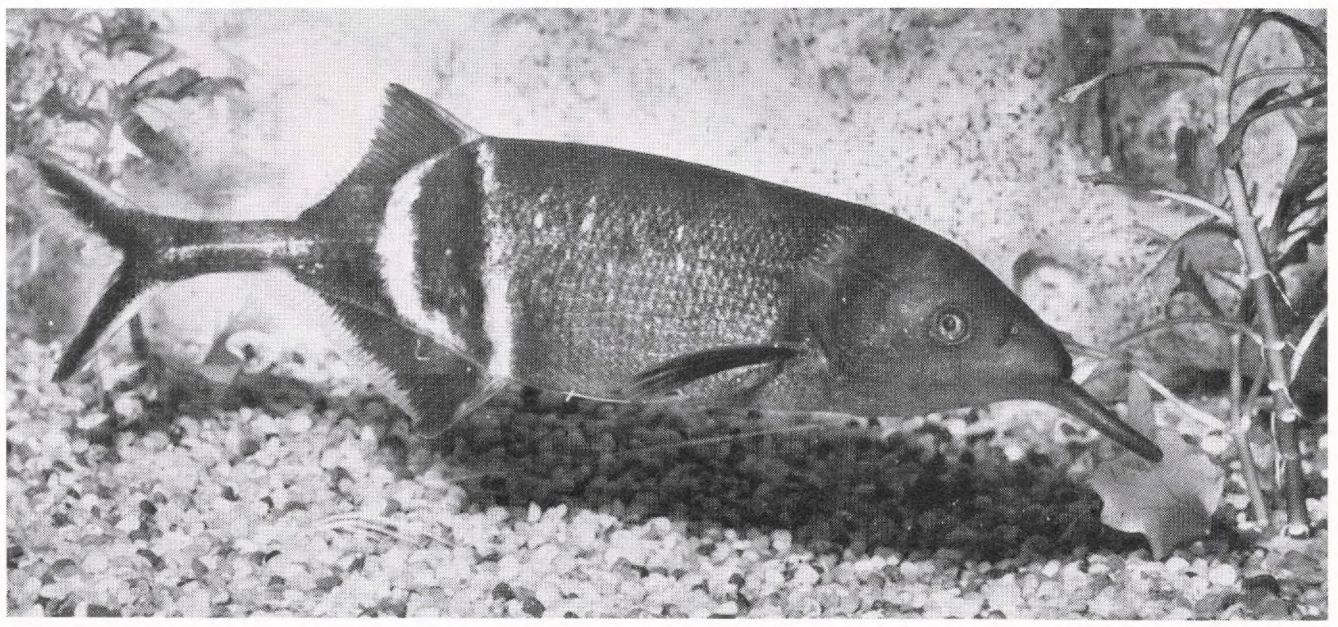
John E. McCosker, Director. The aquarium staff highlighted its ongoing program of public displays with the completion of a major permanent exhibit of a California kelp bed, one of the most productive of the world's biosystems. The 5500-gallon tank gives visitors a scuba-diver's view of the fishes, sea plants and invertebrate animals of kelp beds.

Thousands of specimens were added to the aquarium displays. A Pacific white-sided dolphin, provided by Sea World, San Diego, was a major acquisition. Staff members, research associates and generous benefactors visited exotic collecting spots from Canton Island to the Cayman Islands and the Bahamas to collect unusual creatures. Jeffery Meyer captained his fishing vessel *Grunt* and Charles Merrill provided *Simba* for local collecting activities. Aquarium research projects were supported by grants from the Janss Foundation and the Bothin Helping Fund.

Dr. McCosker is concerned about energy conservation and alternate energy sources. The Pacific Gas and Electric Company made an energy utilization audit of the Academy complex which resulted in refitting and modifying of several mechanical support systems. The Dow Chemical Company utilized the aquarium to develop and test a reverse osmosis method of desalinization.

The aquarium carried on its own educational program of public lectures and instruction of university, Junior Academy, fishwatcher's and aquarium fishkeeping courses. Its facilities were used by medical researchers and graduate students. Perhaps the single most popular educational feature, however, was the tidepool in the Fish Roundabout, where a million visitors, many in school class groups, enjoyed lecture demonstrations and could actually touch marine animals. Innumerable hours were spent at the tidepool by Aquarium Docents and many other volunteers, in order to provide that service.

Steinhart Aquarium received basic support from the City of San Francisco, but its improvements and special activities were funded by a number of friends, foundations and corporations. Particularly generous supporters included Mrs. Marriner Eccles, Mr. and Mrs. Harry Johnston, Mr. and Mrs. Milos Martic, and Mrs. Wilson Meyer.



MORRISON PLANETARIUM

Lee W. Simon, Director. A total of 290,309 persons attended programs in Morrison Planetarium. Of these, 129,581 paid admissions to conventional planetarium programs, 22,646 were children and teachers in class groups for whom 124 special student programs were presented and 116,349 were for Laserium performances. Free attendance by Academy members and guests was 23 percent greater than the previous year. The special program, "Exploring the Skies of the Season" given at 11:00 a.m. Saturdays and Sundays attracted 7291 people.

"Magic Sky" for pre-school, kindergarten, and first grade groups, was offered seven times on an experimental basis and was so successful it will become a part of the regular show schedule.

Left, Thetis, a Pacific white-sided dolphin captured by Sea World, joined Amphitrite in the Aquarium dolphin tank. Left below, an African elephant-lip fish was a living portion of the "Fishes King Tut Might Have Eaten" display.
Below, Nancy Dykes, Business Manager, and Jane Yau, Controller, are responsible for Administering the Academy's financial affairs, and the activities of the business office. Below right, Mr. and Mrs. Rikuro Ito showed director Lindsay their gifts of Japanese mineral specimens to the Academy.

A new, high quality panorama system enhanced the projection capabilities for detailed astronomical scenes and environments. Other equipment and facilities were added as part of an on-going modernization and improvement program.

Morrison Planetarium is an important educational and recreational unit of the Academy, and it additionally produces substantial revenue for the general Academy operating budget. This year net income from the planetarium was $118,000.

EXHIBITS DEPARTMENT

Robert Bjorkland, Chairman. This was a year of major exhibitions. It started with "Peru's Golden Treasures," a rich presentation organized by the American Museum of Natural History, as was "Ice Age Art," which opened in February with co-sponsorship of the L. S. B. Leakey Foundation. The "Hand of Man" exhibition of Douglas Mazonowicz' fine serigraphs was also co-sponsored by the Leakey Foundation, in connection with a symposium on the artistic achievements and motivation of people from ten to thirty thousand years ago.

"Creativity, the Human Resource," sponsored by Chevron U.S.A. and designed by Bruce Burdick, opened in May, starting a three-year tour of major museums across the nation. Its enormous popularity reflects people's fascination with the ingenuity and creativity of mankind. Transmitting concepts through use of computer terminals, multimedia displays and more traditional communication methods, "Creativity" captivated hundreds of thousands of viewer-participants.

Sixteen other temporary shows were presented, including "Namingha: Extensions of the Nampeyo Creative Spirit," "Man in Essence," "From Drake to Cook: Two Centuries of British Discovery in the Pacific," and "Farallon Islands."

The final three of nine diorama units in the Wattis Hall of Man were installed. "The Gabra, East African Herders," the "Navajo and Hopi," and "Herders of the High Andes." The exhibits and audio interpretive system for Wattis Hall can now be completed.

LIVING ARTS PROGRAM. Sandra McCosker, Coordinator. A variety of programs featuring ethnic music, dance and handicraft creations were presented in the Wattis Hall of Man by the Living Arts Program, directed by Sandra McCosker, with matching grant support from the National Endowment for the Arts. Programs were daily during the summer and on weekends in the winter.

JUNIOR ACADEMY. Kenneth E. Lucas, Supervisor. The Junior Academy's new facilities and increased staff made possible the presentation of sixty courses for its 607 members. Seventeen of these were for youngsters six to eight years old, accompanied by parents.

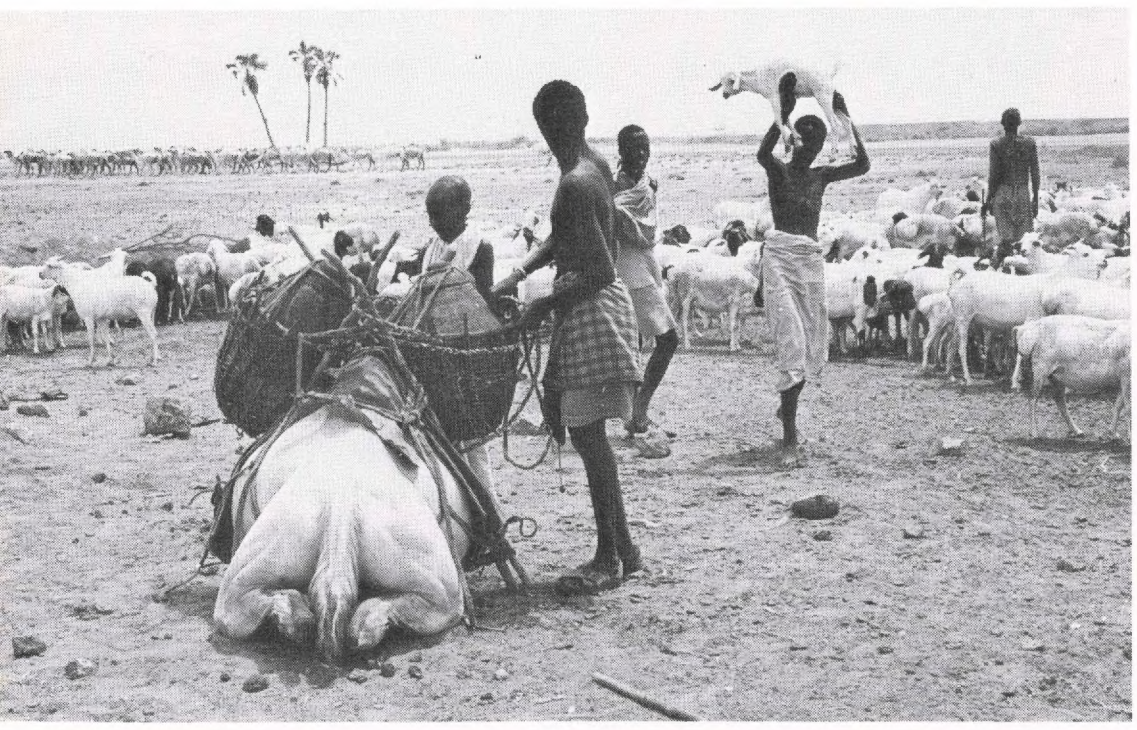
"Ecology of the Central Coast Range," was a field exercise for older students conducted at Pepperwood Ranch, which will be utilized for additional natural science studies in the spring.

The "Discovery Room," which opened in September 1978, was used by 29,395 children during the remaining nine months of the year! Developed by Kerry Mahar, with funds provided by Janet Nickelsburg, the popularity of this little room required the recruitment of volunteer staff. The opportunity for tactile exploration of natural treasures and beauties by blind children is particularly gratifying.

DEVELOPMENT AND MEMBERSHIP. Kathleen F. Bowman, Development Officer. There were 11,884 adult memberships on July 1, 1979, an increase of 12½ percent during the year. Most memberships are for families so there were at least 25,000 members, in addition to 607 Junior Academy members. Mrs. Ernest R. Lilienthal chaired the Trustee Membership Committee, which supervises and advises staff programs. Marian Ganapol is Membership Services Coordinator. Gross income from memberships was $188,975.

There were more than 400 volunteers, including docents, who donated their services to the Academy. Frances Reed serves as Volunteer Coordinator and is responsible for their placement. There were twenty-five information desk volunteers, supervised by Betsy Arminger. They are the Academy's official greeters and information sources, and additionally are effective recruiters of new members.

The Friends of the Academy, that group of annual donors in the $1,000 category, grew to eighty-six under the continued chairmanship of Trustee John A. Sutro.



Corporations and Corporate Foundations, as listed in this report, gave $95,-315 for the general operating support of the Academy, in addition to substantial support for special projects.

J. W. MAILLIARD, JR. LIBRARY. Ray Brian, Librarian. The library subscribed to 390 journals and 51 monographs, at a cost of $15,600, and purchased 682 books at a cost of $10,471. Exchanges were maintained with 141 domestic and 480 foreign institutions and learned societies, for 1,242 serials.

Branch libraries of specialized literature are maintained in each of the research departments.

PACIFIC DISCOVERY. Bruce Finson, Editor, and Johan Kooy, Art Director. Our "Journal of Man and Nature in the Pacific World" is published every other month, and has a circulation of about 14,000. One issue, on Peru, was so popular that 28,000 were printed. In addition to the normal production of the magazine and annual report, the Pacific Discovery staff also edited and produced a catalogue for the Ice Age Art show, which is scheduled to be circulated nationwide with the exhibit.

Associate Editors Robert I. Bowman, John E. McCosker, and Robert T. Orr, and Managing Editor George E. Lindsay review manuscripts and assist in the selection of those accepted for publication.

PICTURE COLLECTION. Johan Kooy, Chairman. This department preserves more than a million images in photographs and other graphics which record the Academys' history, expeditions, and a wide spectrum of natural history subjects. The collection has more than 25,-000 color transparencies.

Notable among this year's acquisitions were those donated by Mrs. Robert L. Usinger, Mr. and Mrs. J. V. C. Gregory, Mr. R. R. Sutton, Dr. and Mrs. Gerald Corsi, Mr. Gerald DeGraf and others. Mrs. Helen Peterson made a generous contribution for the purchase of fine graphic material.

The progress of the past twelve months is due to fourteen loyal volunteers who staff the department under Mr. Kooy's direction.

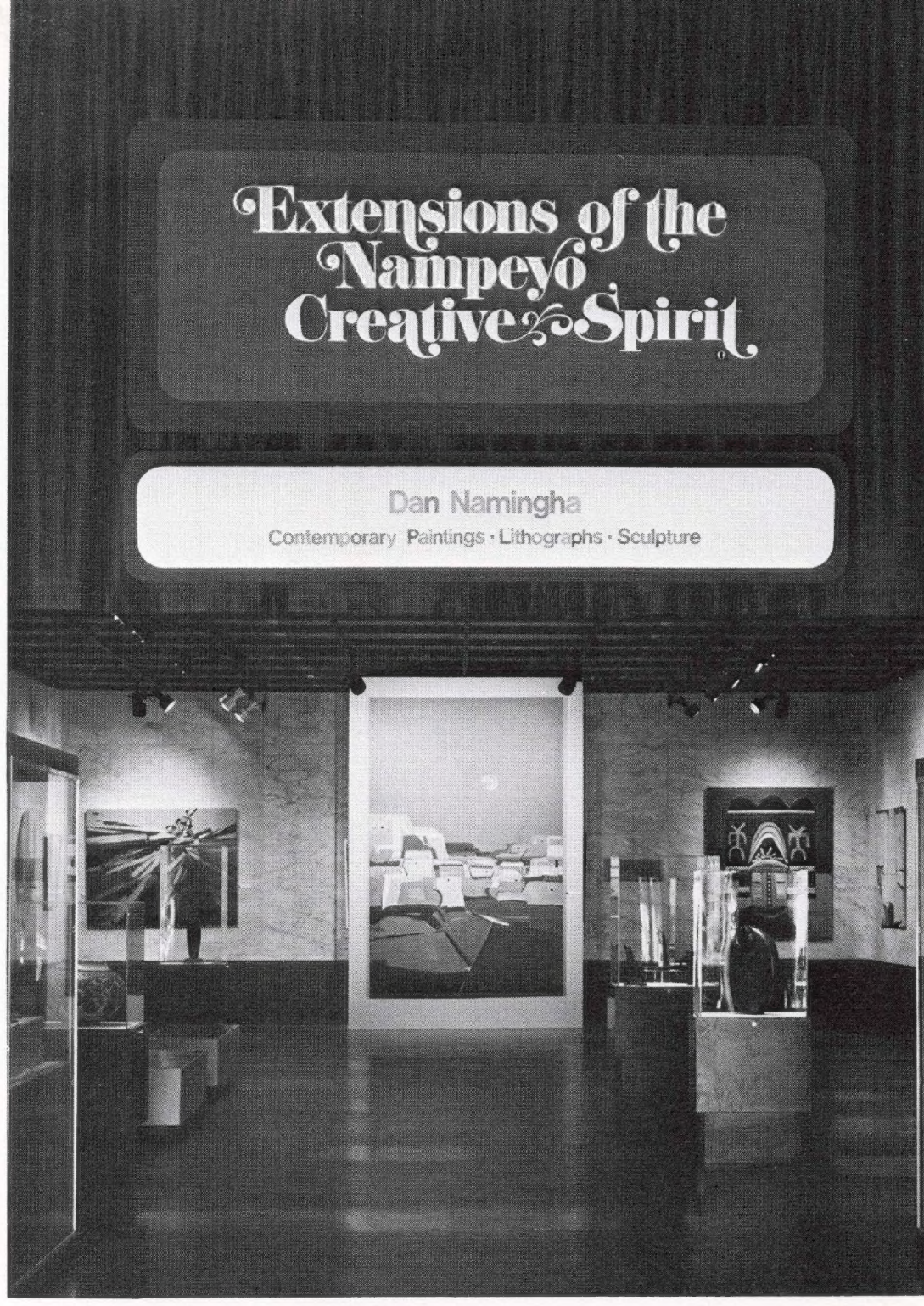
DOCENT COUNCIL. Mrs. Ernest Goodner, Chairman and Diane Butler, Docent Coordinator. The Docent Council began its tenth year in new and commodious quarters on the exhibition floor. The increased space and convenient location enabled the Council and its 125 active members to expand the pre-tour orientation offered student groups. Interpretive tours and enrichment programs were given nearly 18,000 youngsters, while 4,600 more in 77 schools, libraries, and special education facilities were reached by the SUPERVAN. The tidepool exhibit was supervised four hours each day by docent volunteers.

To qualify as a docent one must complete a rigorous basic course of instruction, usually followed by special courses for particular areas. For example, 53 docents completed an intensive course in Anthropology under the direction of Dr. Dorothy Washburn, with lectures by experts in many fields, in preparation for giving tours in the Wattis Hall of Man. There are now eight areas of the Academy which highly trained docents are qualified to interpret.

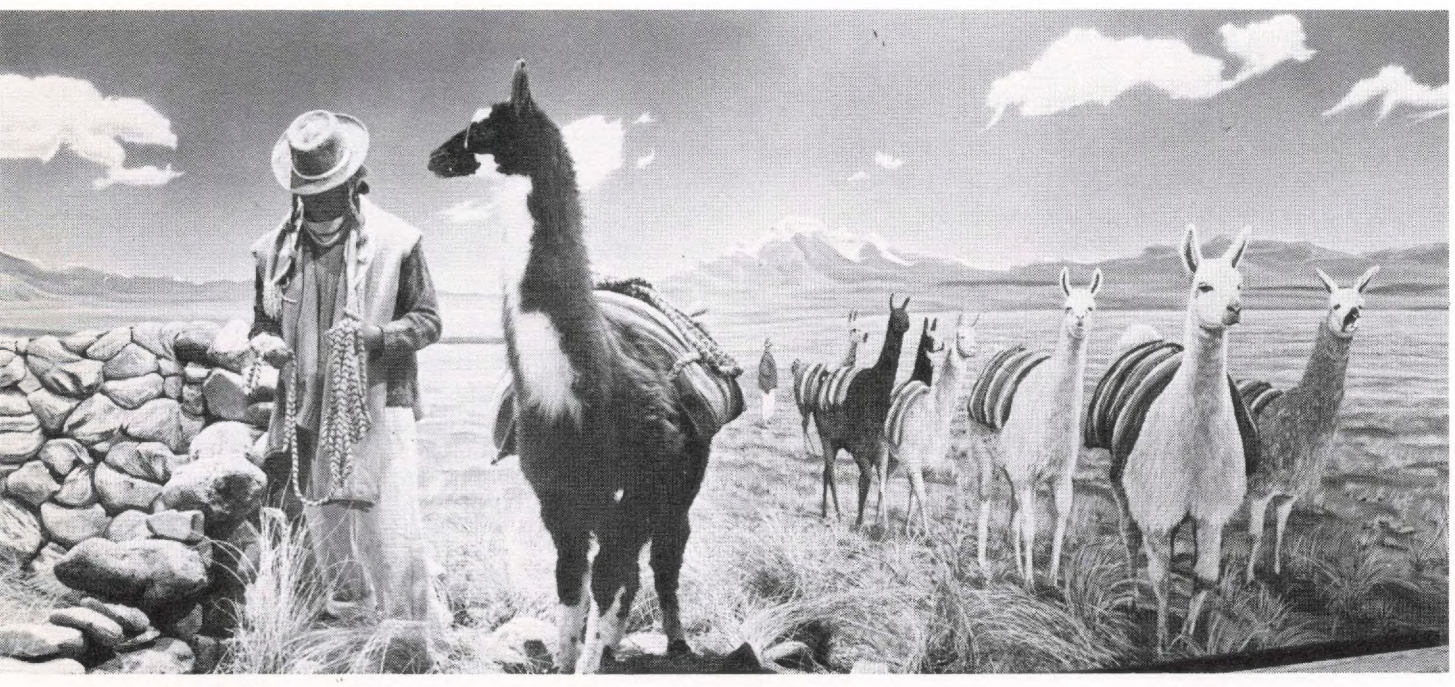
A Tenth Anniversary Dinner on May 10, 1979, honored 51 docents who were still active after five years of service, 12 who had given ten years, and Senior Scientist Robert T. Orr, who has helped guide the Docent Council since its inception.

EDUCATION OFFICE. Gerald Edelbrock, Education Coordinator; Sandra Lelich, International Travel Coordinator. Eleven adult courses with 208 students were given, and thirty trips, which varied from half-day excursions to a month-long cruise to Antarctica, attracted 987 participants.

Dr. McCosker coordinated a two-day International Symposium on the Galapagos Islands, April 6-7, which attracted seventeen government officials of Ecuador, several scientists from Europe, and



Far left, above: Academy members' expeditions went to all parts of the world. This is a cruise to Glacier Bay, Alaska. Far left, below: The Gabra people of northern Kenya were visited by an Academy group. Left, Fred Funk and Kathy Sherfey, of the Exhibits Department, load a camel with Gabra goods in the Wattis Hall of Man. Above, "Man in Essence" was an exhibit of photographs and prose by the late Laurens Hillhouse. Right, a gallery exhibition of the work of the young Hopi-Tewa artist Dan Namingha included examples of the creative genius of five generations of his family, starting with Nampeyo. Below, "Herders of the High Andes" was the final major cultural diorama for the Wattis Hall of Man.



many from the United States. In April another two-day symposium on reptiles and amphibians was co-sponsored by the Academy and the Extension Division of the University of California, with Dr. Leviton as general chairman.

Toward the end of the year Sandra Lelich was given responsibility for coordination of international travel. Members' trips included Alaska, East Africa, Baja California Overland, Pacific Islands of Baja California to see gray whales, Antarctica, two to the Galapagos, Hawaii, Guatemala and Honduras, the Sea of Cortez, and many local favorites including Bristlecone Pines, Pinnacles National Monument, Mendocino Mushrooming, Black Diamond Mines, Point Reyes, and the Lava Beds.

PUBLIC INFORMATION. Pam Wing, Information Officer. The 1978-79 year offered many opportunities to attract media attention. The combination of such exhibits as "Peru's Golden Treasures," paintings by Dan Namingha, "Ice Age Art" and the Academy's 125th anniversary year (1978) resulted in magazine stories, local prime time television shows and many newspaper features.

The Public Information office was responsible for coordinating receptions and publicity for major exhibit openings, for the *Academy Newsletter,* and for information releases. Staff photographer Lloyd Ullberg provided news and publicity photographs, as well as illustrations for the *Newsletter, Pacific Discovery,* and the *Annual Report.*

INSTRUMENT SHOP. Steven B. Craig, Superintendent; Frank DeOme, Technical Supervisor. Mr. Craig is Operations Manager of the Academy's physical plant, and is responsible for the Security and Custodial personnel, the Instrument and Wood Shops, and the maintenance of buildings and equipment.

The Instrument Shop, in addition to instrument repair, fabricated and installed Foucault Pendulums at five institutions, installed electric service and laboratory equipment, printed 400,000 sheets of paper, maintained locks and keys, and supervised improvements and physical renovations of several departments. Every area of the Academy benefited from the services of "the shop."

WOOD SHOP. Eric Johnsen, Supervisor. The Wood Shop manufactured display cases and fixtures for the Exhibits Department, supported outside contractors doing remodeling and, like the Instrument Shop, served all areas of the Academy.

RESEARCH ACTIVITIES

The California Academy of Sciences is the oldest scientific organization in the western United States. For more than 125 years it has been a center for research in life and earth sciences. It is the guardian of vast collections of scientific specimens, which are the foundations for systematic investigation of the basic classification and evolutionary relationships of organisms. The mission of the Academy is research and education in those areas; its obligation is the proper preservation of the collections, insuring also that they remain available for research by others of the international scientific community. The devastation of some environmental areas and the extinction of kinds of organisms is also a concern of the Academy, the oldest conservation organization in the West.

Support of enormous systematic collections is costly, and the collections are for the use of *all* natural scientists. In recognition of the Academy's stature as a national research resource, all of its eight biological collections are among the top ten of the nation, some among the two or three most important ones. The National Science Foundation is providing collection maintenance support for five departments: botany, entomology, herpetology, ichthyology, and invertebrate zoology. This help is important and appreciated.

Dr. William N. Eschmeyer is Director of Research, heading the scientific staff of forty. The following report is of the status of the Academy's collections and accomplishments of the research staff.

ANTHROPOLOGY DEPARTMENT. Dorothy K. Washburn, Chairman and Assistant Curator. The Anthropology Department has the support of the James Irvine Curatorial Chair of Anthropology Endowment.

The Department was reactivated July 1, 1975, and officially organized, with the appointment of a Chairman and Assistant Curator, in October 1978.

Since its reactivation the Department has been deeply involved with the development of the Wattis Hall of Man and other exhibits, and has shared an unusually close relationship with the Exhibits Department.

In October 1978 a matching grant of $41,430 was received from the National Endowment for the Humanities to plan a major exhibition about the Hopi Indians. This was followed by a matching Implementation Grant of $151,700 for completion of the exhibit in May 1980.

During the year the Department accepted 409 artifacts from 31 individual donors. These gifts ranged from single specimens to large important collections. Among the latter are 124 Kachinas given by Nathaniel Owings, the Victor J. Bergeron collection of 96 Pre-Columbian artifacts from Trader Vic, Inc., a Pre-Columbian collection from Robert Powers, textiles from Martha Usinger, prehistoric Eskimo tools from M. Sylvan, Peruvian textiles from Frances Iden, and American Indian baskets from Clay Bedford.

Elayne Zorn was commissioned to collect artifacts from Andean Indians in Peru, and a University of California African Expedition by Jean Colvin was cosponsored by the Academy and the National Museums of Kenya to obtain collections of Rendille artifacts, to complement the Gabra cultural material obtained by William Torry. Joan Bacharach, Collection Manager, made an ethnographic collection of about 100 Zulu artifacts while visiting her home in South Africa.

During the year the Academy loaned 80 artifacts for exhibition in other institutions.

Dr. Washburn led an Academy members' trip to archaeological and contemporary pueblo sites in Colorado and New Mexico in July-August 1978, and another to Northern Arizona sites in July 1979.

The offices of the Anthropology Department were reassigned and organized during the year, and plans for the ultimate development of collection processing facilities and a compactor storage system are being drawn. The L. J. and Mary C. Skaggs Foundation has generously supported the acquisition of a basic working library relating to our collections. The outlook for this small new department is good.

BOTANY DEPARTMENT. Dennis E. Breedlove, Chairman and Curator. Dr. Frank Almeda, Jr., joined the staff as Associate Curator July 1, 1978. Approximately 22,000 specimens were added to the herbarium, which has about 1,400,000 specimens. This was the fifth year of a five year National Science Foundation grant for the integration of Stanford University's Dudley Herbarium and the California Academy of Sciences Herbarium, a project which has required nearly all of Dr. Alva Day's time.

The Department loaned 11,723 specimens to 82 professional botanists and graduate students in institutions in all parts of the world. There were 370 visi-

Left, "Ice Age Art," an exhibition of the paintings and sculpture of ancient man, was created by the American Museum of Natural History and brought to the Academy, in cooperation with the L. S. B. Leakey Foundation. Center, "Creativity" was the innovative and popular exhibit sponsored by Chevron U.S.A. in honor of the centennial of the Standard Oil Company of California. The exhibit opened at the Academy, and will tour major museums for three years. Right, fieldwork on coral reef ecology was conducted in the Sea of Cortez by the Invertebrate Zoology department. Below, Dr. David Cavanaugh explained the science of entomology when his department was featured in a living arts demonstration in the Wattis Hall of Man.

tors who came to use the herbarium and library, some for extended periods, and 420 to have plants identified or to obtain botanical information. Four separate groups of scientists and administrators from the Peoples' Republic of China studied our herbarium facilities during the year.

Dr. Breedlove worked in the Sweetwater Mountains on the California-Nevada border and collected 900+ plants, continued his Flora of Chiapas project, and finished a volume on the Ethnobotany of the Tzotil Indians of Zinacantán, Chiapas. Dr. Almeda spent four weeks collecting Melastomataceae and Compositae in Ecuador.

Dr. Sylvia Earle, Curator of Phycology, lectured and collected in many parts of the world, including Alaska, South Africa, Russia, Australia and the Philippines. Dr. Earle heads the Academy's Conservation Committee. She is a Director of the World Wildlife Fund, both United States and International, of the International Union for the Conservation of Nature and Natural Resources, and of the Environmental Defense Fund. She is, also, Chairman of the Board of Scientific and Technical Advisors of Ocean Trust Foundation and Chief Scientist of the R/V *Eagle*.

ENTOMOLOGY DEPARTMENT. David H. Kavanaugh, Chairman and Associate Curator. The insect and arachnid collections contain about 6,667,100 processed specimens, including 140,158 which were accessioned and added during the past year. These represent contributions from 229 individuals, expeditions, and institutions, and include 244 primary types. The major collection was more than 66,500 Chilian insect specimens from Dr. E. I. Schlinger who, with Dr. M. E. Irwin, collected the material under a program sponsored by the University of California and the Universidad de Chile.

During the year the National Science Foundation provided $51,000 for the care and use of the entomological collection, specifically for salaries of technical assistants and for supplies. The Department gratefully acknowledges this substantial financial support. The new compactor storage system was 95 percent completed and occupied.

Dr. Kavanaugh completed his dissertation on the Nearctic species of *Nebria* (Coleoptera: Carabidae). Dr. Arnaud continued his studies of the genus *Hilara* (Diptera: Empididae) and completed a catalog of Diptera type specimens in the Academy's collection. Dr. Ross did research on the Embiidina with field work in southeastern Asia. Mr. Lee pursued work on terrestrial pseudoscorpions of Baja California and "marine" insects of sandy ocean beaches. Mrs. Mullinex continued her studies of Amblypygida.

The department was visited by 383 professional entomologists, 149 graduate students, 212 undergraduate or high school students, and about 2,000 others who came in class groups.

A total of 87,228 specimens were loaned to 186 persons in 261 separate transactions, to scientists throughout the United States and in 21 foreign countries on 6 continents.

GEOLOGY DEPARTMENT. Peter U. Rodda, Chairman and Curator. The Geology Department's collections consist of invertebrate fossils, recent shells, diatoms, and minerals. There are 60,407

lots of fossils and recent shells, 573 lots having been accessioned during the year. Important additions were received from Clarence Schuchman, Mr. and Mrs. William Pitt, Dr. Antonio J. Ferreira, Robert W. Schmieder, George Mendenhall and Mobil Exploration and Producing Services.

The Diatom collection, which is cared for by Margaret M. Hanna, contains approximately 52,000 slides; 2,000 single-mount slides and 1,000 photo negatives of individual diatoms having been donated by A. L. Brigger, and five special-mount slides were given by R. L. Firth.

There are 3,455 primary type specimens and 7,510 paratypes in the type collection. A holotype and 3 paratypes of a new species of the bivalve *Crassinella* was received from Carol C. Skoglund, and two paratypes of the gastropod *Epitonium* were from Helen DuShane.

There are 10,722 mineral specimens, with 579 accessioned during the year. A 465 pound amethyst geode from Brazil was purchased for the Academy by Victor J. Bergeron. Mrs. Irene Alonso gave a 67 carat gemstone kunzite, and an aquamarine crystal with a liquid inclusion from Brazil. Mr. and Mrs. Rikuro Ito presented six spectacular mineral specimens from Japan, including two large chrysanthemum stones. Mr. A. L. McGuiness gave 40 specimens of rare or new minerals from worldwide localities. Mr. George Mendenhall gave selenite from Australia, pyrite and huebnerite from Peru, and tourmaline on albite and orthoclase from Brazil.

Dr. Rodda's research was mainly on the paleontology and stratigraphy of Neogene rocks in western Sonoma County, and of Cretaceous rocks of northern Sacramento Valley.

Dr. Roth continued studies of California land snails. In August 1978 he participated in a U.S. Geological Survey paleontological field trip to arctic Alaska.

Loans made by the department totaled 2,140 specimens in 43 transactions. A small reference collection of California land snails was given to the California Department of Fish and Game. The Department's collections were used by approximately 325 visitors during the year.

HERPETOLOGY DEPARTMENT. Alan E. Leviton, Chairman and Curator. During the fiscal year, 2807 specimens were added to the research collection, which is thought to have about 240,000 specimens. Most of the new material was from other than the United States, and included the Hoevers-Johnson Kenya and Somalian collection of 739 amphibians and reptiles, the Gasperetti Saudi Arabian collection of 115 specimens, R. Seib, R. Goodrich and R. Murphy's collections of 1255 amphibians and reptiles from Mexico, 65 amphibians and reptiles from Venezuela given by S. Maness, and 84+ specimens collected by Robert Drewes in Zambia. Twenty-eight countries are represented in the accessions of 1978-79.

Loans of 3,228 specimens were made in 79 transactions, to staff and students at 32 institutions. By comparison the department staff borrowed 116 specimens in 13 transactions, which is typical of all departments responsible for major collections and points up the Academy's service obligation. Seventy-seven visitors came to the Academy to use the collections, accounting for 240 visitor days. The National Science Foundation granted $21,290 in collection support.

Far left, the Herpetology Department laboratories and offices were provided new quarters during the year. Left, the Discovery Room was used by nearly thirty thousand youngsters the first nine months it was open. Below, a corner of the Discovery Room is equipped for use of tactile exhibits by blind children.

The Herpetology Department's offices, library, laboratory and visitors' quarters were relocated, and the very large 1905-06 collection of Galapagos tortoises was moved to a collection room which formerly served as departmental offices.

Dr. Leviton serves as Secretary-Treasurer of the Pacific Division, American Association for the Advancement of Science, and on a number of professional boards and committees. Mr. Drewes is a member of the Board of Directors of the San Francisco Zoological Society.

ICHTHYOLOGY DEPARTMENT. William N. Eschmeyer, Chairman and Curator, and Director of Research for the Academy. Accessions during this report period were 1,418 lots, containing 9,039 specimens. The Ichthyology collection, which includes the former Stanford University collection and George Vanderbilt collection, contains more than 175,000 lots and probably about 1,400,000 specimens. Noteworthy among this year's additions were fishes from Eniwetok Atoll given by R. S. Nolan, from Canton Island by John McCosker, from the Gulf of Alaska collected by Tomio Iwamoto, and macrourids presented by T. Arai. Type specimens of new species were received from 12 ichthyologists.

The National Science Foundation continued funding in the amount of $39,993 for two technician positions to process loans and help care for the collection. The Academy's fish collection is ranked as the second in importance in the United States.

During the year 3,892 specimens were loaned in 98 transactions. Approximately 125 researchers came to the department to use the collection, some for extended periods.

The department is heavily involved in a National Oceanic and Atmospheric Administration (NOAA) project, as a voucher specimen repository for studies of the Outer Continental Shelf Survey of Alaska.

Dr. Eschmeyer continued his studies of scorpion fishes and their relatives. Stuart G. Poss, a graduate student at the University of Michigan, spent the summers of 1978 and 1979 at the Academy to collaborate with Dr. Eschmeyer on several projects.

Dr. Iwamoto continued his detailed revisionary studies of deep sea macrourid fishes, and serves also as Editor of the Academy's scientific publications.

Mr. Follett continued his studies of California fishes and archaeological fish remains. He and Lillian Dempster completed their list of the fishes of California with Dr. Carl L. Hubbs and saw it published on June 12.

Dr. Tyson Roberts completed the first year of a three-year project on the fishes of the Kapuas River in Indonesia, with a research grant from the National Science Foundation. During the year his large study of the fishes of the Fly River in New Guinea was published.

INVERTEBRATE ZOOLOGY DEPARTMENT. Welton L. Lee, Chairman and Curator. At the beginning of this report period Dr. Lee estimated there were at least 96,000 lots of specimens in the Invertebrate Zoology collection. Since then 600 additional lots were received, most of them from Korea, Japan, Okinawa, the Philippines and Taiwan, donated by Calvin Randolph. Seventy lots of sea anemones from Indonesia were given by Daphne F. Dunn, and Robert Schmeider of the Cordell Bank Expedition presented 170 lots collected by SCUBA divers.

Dr. Lee reports that the collection of the Dillon Beach Marine Station, which is being discontinued by the University of the Pacific, will be transferred to the Academy. The collection could amount to 7,000 lots, and is particularly significant because of its full documentation, and representation of the estuarine fauna.

Two new research facilities were completed. A microtechnique laboratory, for which the National Science Foundation granted $9,899 for equipment, and a biohistochemical laboratory. The Bothin Helping Fund provided a $5,000 grant to help computerize the San Francisco Bay Bibliography. The Invertebrate Zoology staff continued involvement with the Farallon Research Group, which is also sponsored by the Oceanic Society and is investigating the littoral biota of the islands.

Dr. Lee serves as Chairman of the National Advisory Committee on Resources in Invertebrate Systematics, Chairman of the Council on Standards of the Association of Systematic Collections, and in other capacities with other organizations. Mr. Chivers is an advisor for the Presidential Committee on Rare and Endangered Species.

ORNITHOLOGY AND MAMMALOGY DEPARTMENT. Laurence C. Binford, Chairman and Associate Curator. The Department received 596 birds in 52 accessions and 140 mammals in 40 accessions. Dr. Walter C. Brown gave 408 study skins of birds and 48 study skins and skulls of mammals from the Philippines, many of them new taxa for the collection. Other rarities were an albino Cassin's Auklet from M. R. Graybill, a Brown Thrasher from Peter Metropulos, a Bay-breasted Warbler from Georgianne Manolis, an Alaskan nest and egg of Bluethroat from David Shuford, 17 African mammal skulls from Dr. John Spencer, 28 marine mammals from the California Marine Mammal Center, and a rare Risso's Dolphin from Tupper Blake. The late Dr. Thomas Poulter gave a large collection of magnetic tapes of marine mammal sounds, and 30,000 feet of film, including a finished motion picture on marine mammals.

The collections contain 84,500 birds and 22,200 mammals. Two hundred eight birds and 195 mammals were loaned. A total of 500 visitors logged 632 visitor days. Seventy nine were visiting scientists and 118 were graduate students.

Dr. Binford devoted his research time to the birds of Oaxaca. Senior Scientist Robert T. Orr, with Mrs. Orr, led Academy members' trips to Alaska, Kenya and the Seychelle Islands, and Guatemala and Honduras. He participated in the North American Mycological Association foray in Denmark, Sweden, Finland and Norway.

Mrs. Schonewald and Dr. Arnold initiated integration of the former Stanford University mammal collection with the Academy's specimens.

SCIENTIFIC PUBLICATIONS. Tomio Iwamoto, Editor. During the year ten issues (249 pages) of the *Proceedings*, an Index and Table of Contents for volume 41 of the *Proceedings* (compiled by Lillian Dempster), and 4 issues (282 pages) of the *Occasional Papers* were published at a cost of $24,851.95. Part of that cost, $5,000, was paid by authors, Mailing expense for the year was $2,-940.20.

Most of the scientific publications are used for exchanges with other organizations.

The Scientific Publications Committee members were Laurence C. Binford, Chairman, Frank Almeda, Jr., William N. Eschmeyer, Tomio Iwamoto, and George Lindsay.

George E. Lindsay
Director

STAFF

(as of June 30, 1979)

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Michael Bennett, *Lecturer*
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Benjamin Mendelsohn, *Lecturer and Floor Manager/Technician*
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Daniel Pava, *Floor Manager/ Technician*
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Stella E. Tatro, *Curatorial Assistant*
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Norris Coleman, Jr., *Custodian*
Rosa Ortiz, *Custodian*

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Otis Chappell, *Guard*
Patti Downing, *Guard*
James Murphy, *Guard*
Randall Stephens, *Guard*
Paul Woolf, *Guard*
Michael Alderson, *Relief Guard*
Gary Cross, *Relief Guard*
Lois Harter, *Relief Guard*
Brian Lerond, *Relief Guard*

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Jeffrey Mullin, *Designer-Fabricator*
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Lloyd E. Ullberg, *Staff Photographer*

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Johan Kooy, *Chairman*

PUBLIC INFORMATION

Pam Wing, *Information Officer*

SCIENTIFIC PUBLICATIONS

Tomio Iwamoto, *Editor*
Lillian J. Dempster, *Indexer*

CETA

The Academy's staff was augmented by about thirteen persons who worked under the Comprehensive Employment and Training Act (CETA). These valuable employees served in the business office and the anthropology, exhibits and security departments.

ACADEMY VOLUNTEERS

1978-1979

Many Academy programs, activities and services are augmented by volunteers who donate their time and services. We are most grateful to the following:

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Julie Alden, *IZ*
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Catherine Allman, *ID*
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Phoebe Brown, *Ex*
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Milford Chang, *He*
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Anna Marie Christensen, *Do*
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Helen Court, *En*
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Bill Cuneo, *Ad*
Roberta Cunningham, *Aq*
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Pat Dal Porto, *Do*
Emily Date, *Ad*
Karen Lee Davis, *IZ*
Maxine Davis, *Do*
Thomas Day, *Do*
Tim Delgman, *Bo*
Eames Demetrios, *Aq*
Llisa Demetrios, *Aq*
Elaine Deman, *Bo*
Deborah Desmond, *Aq*
Karma DeWitt, *Do*
Betsy Dingwell, *An*
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Nancy Dorger, *Aq*
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Lynn Dunne, *Do*
Robert Dunne, *Aq*
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Mildred Fenton, *Do*
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Key to department abbreviations

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An	Anthropology	*En*	Entomology	*ID*	Information Desk	*OM*	Ornithology and Mammalogy
Aq	Aquarium	*Ex*	Exhibitions	*IS*	Instrument Shop	*PC*	Picture Collection
Bo	Botany	*Ge*	Geology	*IZ*	Invertebrate Zoology	*Pl*	Planetarium
Do	Docents	*He*	Herpetology				

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CALIFORNIA ACADEMY OF SCIENCES

STATEMENT OF CHANGES IN FUND BALANCES
YEAR ENDED JUNE 30, 1979

	Current funds				
	General operating	Restricted to research	Special purpose funds	Endowment fund	Building fund
Balance (deficit) at beginning of year	$ (336)	$264,278	$5,688,726	$2,613,283	$ (113,517)
Additions:					
Operating income	2,373,428	—	—	—	—
Contributions, grants and appropriations for endowments and special purposes	371,916	345,603	3,721,108	110,524	351
Investment income	358,966	—	432,964	—	—
Laserium receipts	—	—	12,000	—	—
Gain on sale of securities	—	—	167,396	6,074	—
Other	—	14,060	242,039	—	—
Total additions	3,104,310	359,663	4,575,507	116,598	351
Deductions:					
Operating expenses	3,176,999	—	—	—	—
To finance expenditures of research grants	—	287,636	—	—	—
Indirect costs charged to research grants	—	52,110	—	—	—
Amounts expended for furniture, fixtures and equipment	50,737	44,268	103,223	—	—
Amounts expended for construction	—	5,580	—	—	—
Amounts expended for professional services	—	7,293	30,718	—	—
Other	—	—	410,059	2,240	—
Total deductions	3,227,736	396,887	544,000	2,240	—
Budgeted transfers between funds	95,908	(3,426)	(115,848)	23,366	—
Balance (deficit) at end of year	$ (27,854)	$223,628	$9,604,385	$2,751,007	$ (113,166)

See accompanying notes to financial statements.

CALIFORNIA ACADEMY OF SCIENCES

BALANCE SHEETS — JUNE 30, 1979

ASSETS	Current funds				
	General operating	Restricted to research	Special purpose funds	Endowment fund	Building fund
Cash:					
Commercial accounts	$ 23,335	—	$ 53,944	$ 2,990	$ 1,600
Savings accounts	503	—	188,340	12,853	—
	23,838	—	242,284	15,843	1,600
Receivables:					
Research grants (note 2)	—	258,320	—	—	—
Accrued interest and dividends receivable	19,682	—	56,474	—	—
Other	46,792	3,967	2,205	—	—
	66,474	262,287	58,679	—	—
Inventory of guidebooks, at cost	1,217	—	—	—	—
Prepaid expenses	66,166	—	—	—	—
Investments (note 3):					
Commercial property, including a fully depreciated building	—	—	—	608,084	—
Marketable securities	—	—	8,306,707	2,285,160	—
Real property (note 10)	—	—	808,460	—	—
Due from other funds	—	—	462,798	—	—
Buildings (note 4)	—	—	—	—	—
Collections, library and equipment (note 5)	—	—	—	—	—
Unamortized lease costs (amortized on the straight-line basis for 40 years)	3,539	—	—	—	—
Total assets	$161,234	$262,287	$9,878,928	$2,909,087	$ 1,600
LIABILITIES AND FUND BALANCES					
Liabilities:					
Accounts payable	110,624	2,058	12,601	—	—
Accrued expenses	8,697	—	—	—	—
Other liabilities (note 12)	16,647	8,058	153,653	—	—
Due to other funds	53,120	28,543	108,289	158,080	114,766
Total liabilities	189,088	38,659	274,543	158,080	114,766
Fund balances:					
Current unrestricted, available for general operations	(27,854)	—	—	—	—
Current restricted, designated by donors for:					
Research grants	—	223,628	—	—	—
Special purposes	—	—	9,061,304	—	—
Irvine anthropology curatorial chair	—	—	543,081	—	—
Endowment fund, under board discretion	—	—	—	2,751,007	—
Building fund	—	—	—	—	(113,166)
Fund balances	(27,854)	223,628	9,604,385	2,751,007	(113,166)
Total liabilities and fund balances	$161,234	$262,287	$9,878,928	$2,909,087	$ 1,600

See accompanying notes to financial statements.

CALIFORNIA ACADEMY OF SCIENCES

STATEMENT OF CURRENT FUNDS—GENERAL OPERATING REVENUES, EXPENSES, TRANSFERS AND FUND BALANCE

Year ended June 30, 1979 with comparative figures for 1978

	1979	1978
Revenues:		
Support from the public:		
Corporate contributions	$ 68,750	38,970
Individuals, trusts and private foundations	107,048	90,779
Membership dues	196,118	168,303
Total support from the public	371,916	298,052
Operating income:		
City and County of San Francisco support of operations (note 8)	954,203	1,027,398
Fees and grants from others	47,637	60,487
Planetarium (including Laserium income of $101,751 in 1979 and $42,000 in 1978)	281,427	196,941
Admissions	857,476	424,661
Sales desk royalty	54,064	24,016
Restaurant royalty	95,974	93,742
Other	82,647	55,410
Total operating income	2,373,428	1,882,655
Investment income:		
Net rent from commercial building	222,591	266,016
Interest and dividends	136,375	126,563
Total investment income	358,966	392,579
Total revenues	3,104,310	2,573,286
Budgeted transfers from other funds	95,908	221,286
Total revenues and transfers	3,200,218	2,794,572
Expenses:		
Aquarium and museum	1,372,145	1,281,708
Departmental research and curatorial activity	679,034	593,020
Planetarium	147,306	126,933
Laserium (note 11)	33,079	—
General and administrative	936,297	743,760
Employees' pension and annuity (note 6)	59,875	50,223
Total expenses	3,227,736	2,795,644
Excess of expenses over revenues and transfers	(27,518)	(1,072)
Fund balance (deficit) at beginning of year	(336)	736
Fund balance (deficit) at end of year	$ (27,854)	(336)

See accompanying notes to financial statements.

ACCOUNTANTS' REPORT

The Board of Trustees
California Academy of Sciences:

We have examined the balance sheets of the funds of the California Academy of Sciences as of June 30, 1979 and the related statement of current funds—general operating revenues, expense, transfers and fund balance and statement of changes in fund balances for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

Under generally accepted accounting principles, expenditures for furniture, fixtures and equipment should be capitalized. The California Academy of Sciences charges such purchases to current expenses, the effect of which is more fully described in note 9.

In our opinion, except as noted in the preceding paragraph, the aforementioned financial statements present fairly the financial position of the California Academy of Sciences at June 30, 1979 and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

The examination referred to above was directed primarily toward formulating an opinion on the financial statements of the California Academy of Sciences taken as a whole. The supplementary data included in Schedules 1 through 3 are presented for supplementary analysis purposes and are not necessary for a fair presentation of the financial position and results of operations and changes in financial position of the California Academy of Sciences. The supplementary data have been subjected to the auditing procedures applied in the examination of the basic financial statements and, in our opinion, except as noted above, are stated fairly in all material respects only when considered in conjunction with the financial statements taken as a whole.

Peat, Marwick, Mitchell & Co.
San Francisco, California
September 12, 1979

NOTES TO FINANCIAL STATEMENTS

JUNE 30, 1979

1. *Summary of Significant Accounting Policies*

The Academy uses the accrual method of accounting with revenue recorded when earned and expenses recorded when incurred. Government grants are recognized in full when awarded.

Gifts of specimens and collections are not included in the financial statements.

Donated materials and services are not recorded.

The Academy has the following funds:

a. Current General Operating Fund—This funds accounts for resources used in carrying on the routine operations of the Academy in accordance with the limitations of its charter and bylaws. The governing board exercises discretionary control over this fund.

b. Restricted Funds:

1. The current "restricted to research" fund accounts for gifts and grants restricted to research projects. Certain of the general operating fund expenditures are also for research.

2. The special purpose funds account for resources contributed to the Academy for specific purposes, other than research projects. The resources are currently available for use, but expendable only for the purposes specified by the donors. Funds donated for plant improvements and the Irvine curatorial chair for anthropology are included in the special purpose fund category in the financial statements. Portions of the funds contributed for the use of various aquarium and museum departments may be designated by the Board of Trustees to general operations to the extent such expenditures are within the purposes specified by donors.

3. The building fund accounts for resources contributed specifically for the purpose of constructing projects such as the Fish Roundabout and the Wattis Hall of Man. The net overexpenditure of this fund as of June 30, 1979 will be funded by either amounts under board discretion or donor funds contributed for that purpose.

c. The endowment fund is comprised of unrestricted gifts and bequests. Unrestricted gifts in excess of $10,000 are credited to this fund. The principal amount of the gifts and bequests is not maintained intact in perpetuity. Transfers from the endowment fund and dispositions of its principal are made at the discretion of the governing board. The endowment investment income is credited, as earned, to the current general operating fund.

2. *Research Grants Receivable*

Grants receivable represent amounts pledged to the Academy for certain operations and for the completion of designated projects in future years. The grants will be collected as expenditures are made for the designated project. A summary of grants receivable follows:

National Endowment of the Arts, Living Art	$ 9,860
Department of Health, Education and Welfare	12,500
National Science Foundation	200,938
National Endowment of the Humanities	13,053
Other	21,969
	$258,320

3. *Investments*

Investments are recorded at cost, or if acquired by gift, at their fair market value at the date of acquisition. A summary of the current market value of the marketable securities for each fund follows:

	Book value	Market value
Special purpose fund	$8,306,707	$8,537,325
Endowment fund	$2,285,160	$2,191,876

The Academy owns an eleven story, fully depreciated commercial building located in the City of San Francisco. The value as recorded on the books of account represents the cost of the land.

4. *Buildings*

Under the terms of the Charter of the City and County of San Francisco, no one other than the City may hold title to buildings on City property. As the Academy facilities in Golden Gate Park are acquired, title is transferred to the City and County of San Francisco. The buildings were valued at $18,747,994 by independent appraisal in 1976.

5. *Collections, Library and Equipment*

Collections, library and equipment are expensed in the year of acquisition. The Academy staff has estimated the replacement cost of collections, library, and equipment to be in excess of $10,000,000.

6. *Employees' Pension Annuity*

On January 1, 1964, the Academy adopted a pension annuity plan for all regular full-time staff members under the age of 59 as of that date. On January 1, 1976, this plan was amended to comply with the Employee Retirement Income and Security Act of 1974.

Under the provisions of the plan, the Academy and the employees each fund one-half of the pension cost. The Academy's contributions are based on 5% of the amount of salary subject to Social Security tax and 7½% of the amount of salary above the Social Security tax base. Total pension expense for the year was $59,875. There is no past service liability, and it is the Academy's policy to fund current pension costs.

7. *Trusts*

The Academy is the ultimate beneficiary under an irrevocable living trust in the amount of $154,731 (market value $162,180). The income of the trust is paid to the grantors and the Academy bears the cost of all trust operations. The assets of the trust are not shown in the accompanying financial statements.

The Academy is the trustee and a fifty percent beneficiary under each of three irrevocable unitrust agreements which, together, had a market value at June 30, 1979 of $1,408,010. Each grantor receives an annual amount equal to six percent of the net fair market value of the assets of the respective unitrust, except for one grantor who receives five percent of the net fair market value of the assets of the unitrust, or current income of the unitrust, whichever is less. These trusts absorb the costs of their operations. The assets of the trusts are not shown in the accompanying financial statements. Distributions under the unitrust agreements, for the fiscal year ended June 30, 1979 totaled $75,967.

8. *Support from the City and County of San Francisco*

Section 6.404d of the Charter of the City and County of San Francisco states that the City shall provide funds necessary for the maintenance of the Steinhart Aquarium and funds deemed proper for the maintenance of the Academy buildings. During the fiscal year ended June 30, 1979, the Academy received $954,203 from the City and County of San Francisco for this support.

In addition, the City provided 35 employees under the federally funded Comprehensive Employment and Training Act (C.E.T.A.). These temporary employees supplemented the regular Academy and Civil Service staffs in the following departments: Aquarium, Security, Business Office, Janitorial, Junior Academy, Exhibits, Anthropology and the Library. The amount of these Federal funds, amounting to approximately $400,000, has not been included in the accompanying financial statements; if recorded, these funds would appear in both revenues and expenses, netting to zero.

9. *Furniture, Fixtures and Equipment*

The Academy departs from generally accepted accounting principles in that it expenses such assets as acquired instead of capitalizing them and amortizing the costs over the useful lives thereof. During the year, the Academy acquired furniture, fixtures and equipment costing $198,228.

10. *Real Property*

The Academy received from the Belvedere Scientific Fund a gift of 3,117 acres of ranchland in Sonoma County known as Pepperwood Ranch. The Academy, under terms of the grant deed of title, must preserve the property in its current natural state and can utilize the property for research and educational activities for a period of at least 10 years. Assessed value of the property on the date of the gift was $808,460.

11. *Laserium Expenses*

Prior to fiscal year 1979, Laserium expenses, which amounted to $27,613, were recorded as part of the special purpose funds. During fiscal 1979, these expenses were transferred to the General Operating Fund and classified separately.

12. *Other Liabilities*

Other liabilities of the special purpose funds and current funds restricted to research represent bank overdrafts in order to take advantage of favorable securities purchase prices in accordance with the investment managers' normal cash management policy. These amounts were repaid by subsequent maturities of trust securities.

13. *Income Taxes*

The Academy is qualified as a tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code and is not a private foundation. The Academy is also tax-exempt under the laws of the State of California.

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